

IN THE SPECIFICATION:

Please amend the application as indicated below.

Page 1:

Please replace the first paragraph as follows:

Description **FIELD OF THE INVENTION**

The invention relates to a method for preventing contamination on the surfaces of optical elements in accordance with ~~the preamble of Claim 1~~ the claims.

Page 1:

Please replace the fourth full paragraph as follows:

BACKGROUND OF THE INVENTION

Multilayer systems should be understood to include systems with special cover layer(s) (cap layer(s)).

Page 4:

Please replace the third full paragraph as follows:

SUMMARY OF THE INVENTION

The object of the invention is to provide a method and a device with which the contamination of the surface of an optical element exposed to EUV radiation can be prevented before it makes the optical element completely unusable. A further object of the invention is to provide a method for cleaning a contaminated surface.

Page 17:

Please replace the third full paragraph as follows:

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will now be described in greater detail with reference to the drawings, in which:

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Please replace the first full paragraph as follows:

DETAILED DESCRIPTION OF THE INVENTION

The device 1 has a vacuum chamber 3 in which an optical element 2, e.g., a mirror with a multilayer system or an optical mask, is arranged, which is illuminated with EUV radiation. Above the optical element 2, a detection ring or detection grid 41 is arranged, which is substantially transparent for the EUV radiation. To cause the photoelectrons to be attracted by the ring 41, a voltage of a few volts (0 to 100 V) is applied by a voltage source 43 between the optical element 2 and the ring 41. When a photoelectron strikes the ring 41, a current flows, which is measured with the aid of the ammeter 42. In the evaluation unit 5, configured, for example, as an analog or digital circuit or as an integrated circuit, or which can be combined with the control unit 6 into a closed-loop control unit, e.g., in the form of a computer, the current signal is evaluated, e.g., by integrating it over time and comparing it with predetermined and stored threshold values. The information as to which threshold value is exceeded or fallen short of at a given time is forwarded to the control unit 6, which then opens or closes the valve 72 of the gas feed 71. The gas feed 71 discharges in immediate

proximity to the surface of the optical element 2 so that the equilibrium between the carbon deposition and the oxidation process can be altered with the least possible delay.